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UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

December 15, 1982

MEMORANDUM FOR: B. J. Youngblood, Chief Licensing Branch No. 1 Division of Licensing Office of NRR

FROM: Frank G. Pagano, Chief Emergency Preparedness Licensing Branch Division of Emergency Preparedness Office of Inspection & Enforcement

SUBJECT: INPUT FOR SAFETY EVALUATION REPORT SUPPLEMENT FOR FERMI 2

Input for the Safety Evaluation Report Supplement for Fermi 2 from the Emergency Preparedness Licensing Branch is enclosed. The material presents the results of our review of the Fermi 2 Radiological Emergency Response Plan, Revision 1, July 1982.

Our review has identified several items for which either a resolution or a commitment from the applicant is required. We conclude that the Fermi 2 Emergency Plan, upon satisfactory correction of those items requiring resolution and those items requiring commitment, as identified in our report, will provide an adequate planning basis for an acceptable state of emergency preparedness.

After reviewing the findings and determinations made by FEMA on the adequar of State and local emergency response plans (which we expect to receive in February 1983) and after reviewing the revisions to the applicant's Emergency Plan as a result of the items identified in this report, we will provide our overall conclusions in an SER supplement as to whether the state of onsite and offsite emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Frank G. Pagano, Chief Emergency Preparedness Licensing Branch Division of Emergency Preparedness Office of Inspection & Enforcement

Enclosure: As stated

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13.3 Emergency Preparedness Evaluation

13.3.1 Introduction

The Detroit Edison Company (the applicant) filed with the NRC Revision 1 to the Fermi Unit 2 Radiological Emergency Response Plan dated July 1982. Previously, the staff had reviewed and commented on an earlier version of the Emergency Plan. The acceptance criteria used as the basis for our review of the Fermi 2 Emergency Plan are specified in Section 13.3, "Emergency Planning," of the Standard Review Plan, NUREG-0800, dated July 1981, and include the planning standards of Section 50.47(b) of 10 CFR Part 50, the requirements of Appendix E to 10 CFR Part 50, and the specific criteria of NUREG-0654/ FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November, 1980. The criteria of NUREG-0654 have been endorsed in Regulatory Guide 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactor," dated October 1981, and thus have the same status as a regulatory guide.

Evaluation of the state of emergency preparedness for the Fermi facility also involves the review of State and local radiological emergency response plans by the Federal Emergency Management Agency (FEMA). The Standard Review Plan states that the FEMA findings on offsite plans are reviewed by

the NKC and a full-scale exercise is conducted at the facility*. Preliminary results of the FEMA review have been provided to the NRC, however, FEMA has not yet reached a conclusion on the overall adequacy of the offsite plans. In accordance with the revised rule on emergency planning (47 FR 30232), no NRC or FEMA findings and determinations concerning the state or adequacy of offsite emergency preparedness are required prior to issuance of an operating license authorizing only fuel loading and low power operations up to 5% of rated power. The findings and determinations of FEMA on the adequacy of the State and local emergency response plans and the overall conclusion of the NRC on the state of emergency preparedness for the Fermi 2 Atomic Power Plant will be presented in a future supplement to the Safety Evaluation Report.

Section 13.3.2 of this report lists each planning standard of 10 CFR Part 50.47(b) followed by an evaluation of the applicable portions of the Plan that relate principally to that particular standard. Section 13.3.3 of this report provides the staff's conclusions.

*A full-scale joint exercise was conducted at the Fermi 2 plant on February 1-2, 1982.

13.3.2 Evaluation of the Emergency Plan

13.3.2.1 Assignment of Responsibility (Organization Control)

Standard

Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Emergency Plan Evaluation

The Emergency Plan identifies the local, State, Federal, and nongovernment organizations that are part of the overall emergency response organization for Fermi 2. The Plan describes the functions and responsibilities of each State and local organization with a response role within the 10-mile radius plume exposure pathway Emergency Planning Zone (EPZ). However, the Plan does not specifically identify the State and local agencies with emergency plan responsibilities in the 50-mile radius ingestion exposure pathway EPZ. In addition, the map chosen to illustrate the ingestion exposure EPZ in

Figure A-2 of the Plan only shows the Michigan part of the EPZ. The full 50-mile ingestion exposure EPZ is shown in Figure J-4 of the Plan, however the figure is a reproduction of poor quality and difficult to interpret.

In the event of a radiological emergency at Fermi 2, Detroit Edison is responsible for classifying the incident, activating the onsite emergency organization, and notifying offsite authorities. The Shift Supervisor is initially designated as the Emergency Director until properly relieved by senior plant management. The Vice-President Nuclear Operations has the ultimate responsibility for the Detroit Edison emergency response. Detroit Edison provides initial emergency notification to the State of Michigan via the Flat Rock State Police Post and to Monroe and Wayne Counties via the Monroe County Sheriff's Office. These organizations all have 24-hour per day communication capability.

The State Director of Emergency Services (Director, Department of State Police), under the direction of the Governor, has the responsibility for directing and coordinating the State emergency response. The State emergency plan is activated when the Governor, on the basis of available information or at the request of a county, declares a state of disaster. The Department of State Police and the Department of Public Health are the primary State response agencies for a radiological emergency. The Department of State Police is responsible for general planning, command and control, and overall

direction and coordination. The Department of Public Health, Division of Radiological Health, is responsible for environmental monitoring, offsite dose assessment, and for developing protective action recommendations for the general population. The State Emergency Operations Center (EOC) is located in Lansing, Michigan, and an on-scene EOC is located at the Flat Rock State Police Post approximately 10 miles north of the plant site.

Monroe and Wayne Counties are the local governmental jurisdictions within the plume exposure pathway EPZ with Monroe County occupying the majority of the EPZ area. The Chairperson of the Monroe County Board of Commissioners is responsible for Monroe County emergency preparedness and has the authority to declare a state of emergency within the County in the event of a radiological emergency at Fermi 2. If a state of emergency is declared, the Monroe County Emergency Operations Plan is implemented and the Monroe County EOC is activated. The Chairperson of the Wayne County Board of Commissioners is responsible for emergency preparedness and implementation of the emergency plan within Wayne County.

The Emergency Plan describes the arrangements which have been made with local support organizations for ambulance service, medical assistance, and fire protection. Arrangements have been made for engineering, technical, and administrative support with the nuclear vendor (General Electric) and the Institute of Nuclear Power Operations (INPO). These arrangements are documented in the form of written agreements which are included in the

Plan. The applicant has entered into a mutual assistance agreement with four other utilities in Michigan and Ohio which operate nuclear power plants. The Plan specifies that the U. S. Coast Guard will provide assistance, upon request from Monroe County authorities, for incidents at Fermi 2 which may affect activities on Lake Erie.

The plume exposure pathway EPZ is shown as an area 10 miles in _dius in Figure J-3 of the Emergency Plan. Although a small parcel of land in Ontario, Canada lies just inside the 10-mile radius, Canada is not considered for planning purposes to be within the plume EPZ. Canada is encompassed within the 50-mile ingestion exposure pathway EPZ, however, the Emergency Plan does not indicate this or identify the agency responsible for notifying Canadian officials of an emergency at Fermi 2.

The applicant has adjusted the boundaries of the 10-mile plume exposure pathway EPZ to account for local conditions, primarily local government jurisdictional boundaries. This plume EPZ with the adjusted boundaries, which is shown in Figure 6 of the evacuation analysis*, was used by the applicant to derive evacuation time estimates and to design the prompt alert (siren) system. The boundaries of the plume exposure pathway EPZ will be evaluated by FEMA during the course of their review of offsite plans.

*"Estimate of Evacuation Times," prepared for Detroit Edison Company by PRC Voorhees, McLean, Virginia, October 1980, Revised March 1982.

The following items require resolution:

- Identify the agencies with emergency plan responsibilities in the ingestion exposure pathway (50-mile) Emergency Planning Zone. Provide a map which clearly illustrates the States, provinces, cities, etc., within the ingestion exposure EPZ.
- Identify the agency or agencies responsible for notifying Canadian officials of an emergency at Fermi 2 and describe the arrangements made to notify Canadian officials.

13.3.2.2 Onsite Emergency Organization

Standard

On-shift facility licensee responsiblities for emergency responses are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Emergency Plan Evaluation

An onsite emergency organization has been established and station staff emergency assignments have been made for all shifts. The relationship between the emergency organization and the normal shift complement is described in the Plan. For each functional area of emergency activity, the positions and/or titles and major tasks to be performed by key shift and plant personnel assigned emergency duties are specified.

The Plan specifies that the minimum number of personnel on shift at all times will be eleven, one more than the minimum shift staffing requirement for emergencies given in Table B-1 of NUREG-0654. The applicant's minimum shift staff will consist of 4 licensed operators, 4 nonlicensed operators, 1 shift technical advisor, 1 health physics/rad-chem technician, and 1 instrument and control technician. The Plan indicates that the onshift staff can perform several functions depending on the emergency until augmentation personnel arrive.

The applicant states in the Plan that they intend to use the 30-minute and 60-minute shift augmentation criteria given in Table B-1 of NUREG-0654 as a goal for staffing the emergency response facilities. The applicant is continuing to evaluate their capability to achieve this goal as the plant staffing level is increased and company employees locate in the plant area.

With the present staff, the applicant states that 90 minutes is required to augment the shift staff in the event of an emergency during non-normal working hours; i.e., back shifts, holidays and weekends. Prior to issuance of an operating license, we will require the applicant to provide information on their final augmentation capability and, if significant differences exist with the staffing objectives of Table B-1 of NUREG-0654, to provide justification for the differences including a study of response times by emergency functions and possible compensating measures such as enhanced shift capability.

At the onset of an emergency, the Nuclear Shift Supervisor who is on shift at all times is designated as the Emergency Director. The Nuclear Shift Supervisor as Emergency Director has the responsibility and authority to implement the Emergency Plan and to initiate emergency actions including the decision to notify and to recommend protective actions to offsite authorities. The Nuclear Shift Supervisor is relieved of his duties as Emergency Director by the Superintendent - Nuclear Production (Plant Superintendent) or his designated alternate. The Emergency Director functions initially from the Control Room and then transfers to the Technical Support Center if the emergency progresses beyond the Unusual Event category. When the Emergency Operations Facility (EOF) is activated at the Site Area or General Emergency level, the Emergency Officer (located in the EOF) assumes overall management responsibility for the emergency.

The interfaces among the onsite functional areas of emergency activity and between the onsite emergency organization and offsite support organizations are illustrated in block diagrams in the Plan. The services to be provided by local agencies for ambulance, medical, law enforcement and fire-fighting assistance are identified and written agreements are appended to the Plan.

The following item requires resolution:

- Provide information on shift staffing augmentation capability prior to issuance of an operating license and, if significant differences exist with the staffing objectives of Table-1 of NUREG-0654, provide justification for the differences including a study of response times by emergency functions and possible compensating measures such as enhanced shift capability.

13.3.2.3 Emergency Response Support and Resources

Standard

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

Emergency Plan Evaluation

The Emergency Plan identifies the Federal, State and local government organizations, private organizations, other nuclear facilities, and local support groups which can be relied upon in an emergency for assistance. Letters of agreement documenting the availability of this assistance are included in Appendix 1 to the Emergency Plan from the following organizations:

> Frenchtown Fire Department EMTS Ambulance Service Seaway Hospital Monroe County Community College Mutual Assistance Agreement between: The Cincinnati Gas & Electric Co. The Cleveland Electric Illuminating Co. Consumers Power Co. The Detroit Edison Co.

> > The Toledo Edison Co.

Institute of Nuclear Power Operations

General Electric Co.

U.S. Department of Energy

Chicago Operations Office

A mutual assistance agreement exists among the five utilities in Michigan and Ohio with nuclear utilities for personnel and equipment assistance upon request. Technical experts are also available to Detroit Edison from the Institute of Nuclear Power Operations (INPO) member organizations including utilities, service companies, architect/engineer companies, and reactor vendors.

Federal assistance is available from the Department of Energy (DOE) through implementation of their Radiological Assistance Plan. Additional Federal agencies and resources are available through activation of the Federal Radiological Monitoring and Assessment Plan (formerly the Interagency Radiological Assistance Plan) which is coordinated by FEMA. The Emergency Plan identifies the Emergency Officer and Emergency Director as the two company officials authorized to request DOE's assistance. A letter from the DOE Chicago Operations Office in Appendix 1 of the Plan documents the availability of this assistance upon request. Formal requests for Federal assistance will be initiated by State officials upon the advice of the Michigan Department of Public Health.

Provisions have been made to accommodate a State liaison officer from the Department of State Police or the Department of Public Health and County representatives in the EOF. The Emergency Plan states that Detroit Edison will provide technical liaison personnel knowledgeable in plant and emergency operations to the State and County EOC's.

Laboratory facilities are available onsite for the analysis of environmental samples during an emergency including the EOF Laboratory, the Chemistry Laboratory, and the Health Physics Laboratory. In addition, the State has a mobile laboratory with radiochemical capability which can be moved to the plant vicinity in the event of an emergency. Post-accident sample analysis is performed under contract by Babcock and Wilcox, in Lynchburg, Virginia.

13.3.2.4 Emergency Classification System

Standard

A standard emergency classification and action level scheme, the basis of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determination of minimum initial response measures.

Emergency Plan Evaluation

Information on the emergency classification scheme is presented in Section D of the Emergency Plan and in Emergency Plan Implementing Procedure EP-101, Revision O.B., "Classification of Emergencies", dated May 1982. The applicant has established a standard emergency classification scheme based

on emergency action levels (EALs) which are observable and measurable indicators of plant status and condition. Events are classified into four standard classes of emergencies; i.e., Unusual Event, Alert, Site Area Emergency, and General Emergency, according to the severity of the event.

The EALs are presented in Table D-1 of the Emergency Plan and are grouped into ten general sections of initiating conditions. For example, one section is titled "Fuel Damage/High Radiation" while another section is titled "Degraded Safety/Protection System." Each section is further subdivided into initiating conditions and EALs representing the four standard emergency classes. The initiating conditions and EALs in Table D-1 are generally in conformance with the guidance of NUREG-0654, Appendix 1, except that the headings at the top of the table are reversed. In addition, many of the instrument readings and other indicators which constitute the EALs are under development and are not specified.

The initiating conditions and EALs are presented in a similar tabular format (with correct table headings) in P-101 except that additional information has been included as to the location of the EAL indicators. EP-101 also includes a table in which only the initiating conditions are shown grouped together in the ten general sections of initiating conditions. The latter table was developed to assist control room operators in the classification of events. A preliminary review of EP-101 raises some concern with the manner in which the procedure is to be used by control room operators. An operator is expected to make an initial, preliminary classification based on

the condensed table of initiating conditions and then to refine the classification by referring to the specific EALs in the EAL table in the procedure. This approach and the structure of the procedure appears to inhibit the flexibility of the operators in revising the initial classification of an event, expecially given the complicated "and/or" logic of some of the sets of EALs. This aspect of the applicant's emergency preparedness program will be examined in detail during the onsite appraisal which will be conducted prior to the issuance of an operating license.

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A review of the emergency classification system indicates that more emphasis should be placed on core and containment conditions to classify events and initiate protective actions, in accordance with the guidance in NUREG-0654, Appendix 1, for General Emergencies. A fundamental EAL indicator, the containment (drywell) high range monitor, appears only once as an EAL with one specific reading. The containment monitor, and other key instrument readings, if applicable, should be correlated to a range of degraded core conditions. Selected values from this analysis should be included in the EALs. In addition, the methodology for classifying serious events in case the containment monitor and other key instrumentation are offscale or inoperable should be developed. The staff has reviewed the EALs and comments have been transmitted to the applicant. Following receipt of the applicant's responses to our comments, we will report our findings in a future supplement to this report.

In Section D of the Plan, the applicant indicates under licensee actions for each class of emergency that offsite authorities will be informed within

15 minutes after declaring an emergency for a General Emergency, within 30 minutes for a Site Area Emergency or an Alert, and within 1 hour for an Unusual Event. Similar notification times are included in Emergency Plan Implementing Procedure EP-290, Revision O.B., "Emergency Notification," except that 15 minutes is specified for notifying offsite authorities for a Site Area Emergency. 10 CFR Part 50, Appendix E, Section IV.D.3, states that a licensee shall have the capability to notify offsite authorities within 15 minutes after declaring an emergency. The staff position as indicated in NUREG-0654, Appendix 1, is that the applicant must commit to notifying offsite authorities within 15 minutes after declaring an emergency regardless of the emergency classification.

The following items require resolution:

- Provide the specific instrument readings and other indicators which are used as emergency action levels (EALs' in emergency classification scheme. Correct the headings in Tat of the Emergency Plan.
- Correlate the containment (drywell) monitor and other key instrument readings, if applicable, to a range of degraded core conditions. Selected values from this analysis along with other indicators of core and containment conditions should be included in the EALs and utilized to initiate protective actions in accordance with the guidance in NUREG-0654, Appendix 1, for General Emergencies.
- Develop the methodology to classify serious events in case the containment monitor and other key instrumentation are off-scale or inoperable.

Revise the Emergency Plan and Implementing Procedures to indicate that offsite authorities will be notified within 15 minutes after declaring an emergency.

13.3.2.5 Notification Methods and Procedures

Standard

Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all response organizations; the content of initial and followup messages to response organizations and the public has been established; and means to provide early notification and clear instructions to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Emergency Plan Evaluation

The Emergency Plan is activated with the declaration of an emergency based upon the standard emergency classification and action level scheme. The Nuclear Shift Supervisor initially assumes the position of Emergency Director until relieved by the Superintendent - Nuclear Production or his designated alternate. The Emergency Director, in accordance with Emergency Plan Implementing Procedure EP-290, Revision 0.B., "Emergency Notifications," ensures that the following personnel and agencies are notified as soon as possible:

- 1. Fermi 2 On-Call Plant Supervisor
- 2. Michigan State Police
- 3. Monroe County Sheriff
- 4. Sandwich West Police Station, Ontario, Canada*
- 5. NRC Region III Office, Glen Ellyn, Illinois
- 6. NRC Operations Center, Bethesda, Maryland
- 7. Fire or Medical Assistance as required

As discussed in Section 13.3.2.3 of this report, EP-290 states that emergency notification will be made within 15 minutes for a General or Site Area Emergency, 30 minutes for an Alert, and 1 hour for an Unusual Event. This use of an escalating notification period is contrary to the requirement of 10 CFR Part 50, Appendix E, Section IV.D.3, and to the guidance in NUREG-0654, Appendix 1, that offsite authorities be notified within about 15 minutes after declaring an emergency.

Procedures have been established for notifying onsite and offsite emergency organization personnel and for notifying Federal, State and local authorities and support agencies. The Emergency Plan indicates that initial information to the public will state that an emergency has occurred at Fermi 2, shelter is advised, and further instructions will be provided. However, there is no

*At Alert or higher level of emergency

message form or procedural step in EP-290 to ensure that this action will be taken in a timely manner. A notification form is included in EP-290 which is consistent with the guidance in NUREG-0654 for followup messages and contains information about the class of emergency, radiological release characteristics, meteorological conditions, monitor readings, dose rates, and recommended protective actions. Verification is accomplished by obtaining on the notification form the name, title, and telephone number of the individual receiving the message. The notification form contains a significant amount of information and it is doubtful if the form could be completed within a 15-minute time period. Therefore, in order to assure that the 15-minute notification form suitable for initial messages which will include basic information such as the class of emergency, whether a release is taking place, potentially affected areas, and predetermined recommended protective measures in accordance with the guidance of NUREG-0654, Appendix 1, for General Emergencies.

The applicant is currently developing a prompt alert and notification system to be used to provide emergency information and instructions to the public within the plume exposure pathway EPZ. The applicant has committed to have the system installed and operational by the time of fuel load. The alerting system will consist of sirens which will provide coverage over the entire plume exposure pathway EPZ. (The Emergency Plan currently states that mobile sirens will be used to augment the alert system in several rural areas on the edge of the EPZ. The applicant has informed the staff that the reference to mobile sirens will be deleted in a revised Plan.) The public will thus be alerted

to tune to local radio and TV stations of the Emergency Broadcast System for information and instructions concerning the emergency. Monroe County authorities will be responsible for activating the prompt alert and notification system upon notification of an emergency by plant personnel.

A review of the applicant's Emergency Plan and its interfaces with local and State emergency plans indicates that the physical means will exist for alerting and providing prompt instructions to the public within the plume exposure pathway EPZ within the notification criteria specified in 10 CFR Part 50, Appendix E, Section IV.D.3. However, it is not clear that the administrative capability exists for offsite authorities to alert the public and provide protective action recommendations within the notification criteria for rapidly developing emergency situations with the potential for offsite releases especially during non-normal working hours. This area of the emergency preparedness program will be evaluated by FEMA during their review of offsite plans.

The following items require resolution:

 Develop a notification form for initial messages to offsite response organizations and revise Emergency Plan Implementing Procedures EP-290, "Emergency Notifications," to ensure that notifications will be made within the 15-minute time period specified in 10 CFR Part 50, Appendix E, Section IV.D.3.

- Provide a commitment to have a prompt alert and notification system which is in accordance with the guidance of NUREG-0654, Appendix 3, installed and operational by fuel load, or develop interim compensatory measures to provide emergency instructions to the public within the plume exposure pathway EPZ. Revise the Emergency Plan to reflect the deletion of mobile sirens from the alert and notification system.
- Coordinate planning efforts with offsite authorities to assure the administrative capability will exist to alert the public and make prompt protective action decisions for rapidly developing emergency situations especially during non-normal working hours.

13.3.2.6 Emergency Communications

Standard

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Emergency Plan Evaluation

The Plan describes the communication systems available for use in emergency situations. Diverse and redundant communications exist between and among all essential onsite and offsite emergency response centers. The principal communication systems consist of telephone systems, radio systems, and a microwave

system. A public address system and a plant intercom system are also available for use onsite. Facsimile machines are provided in the Control Room, TSC, EOF, Joint Public Information Center, and at the corporate offices in Detroit.

Telephone communications include commercial telephone lines and dedicated lines on a separate Detroit Edison-coned telephone system. Direct ring telephones are provided between the onsite emergency response facilities (ERFs) and with the Michigan State Police and Monroe County Sheriff, the primary offsite points of contact. Telephone communications in the assigned NRC area in the TSC and EOF include a hotline on the Emergency Notification System and a dedicated telephone on the Health Physics Network.

A Detroit Edison-owned microwave system is installed at the Fermi site to provide backup emergency telephone communication capability. Through use of the microwave system, telephone communications are routed from the Fermi site to the corporate offices in Detroit and then transferred by land lines to the Michigan Bell system.

Several different radio systems are used to provide communications between onsite emergency centers and onsite and offsite emergency response teams and security personnel. Radios also provide a backup communications capability with offsite response organizations. Portable VHF radios are utilized to communicate with damage and rescue teams, fire brigades, and onsite Radiological Emergency Teams. Offsite Radiological Emergency Teams communicate

via UHF radios installed in each team vehicle. The security radio system provides communications with onsite security personnel through portable UHF radios and, in addition, includes frequencies for communicating with the Michigan State Police and the Monroe County Sheriff.

Detroit Edison provides initial notification to the State via the Flat Rock State Police Post, and to Monroe and Wayne Counties via the Monroe County Sheriff's Office. All locations have communication facilities which are manned 24 hours per day.

Communication tests, as specified in Emergency Plan Implementing Procedure EPA-4, Revision O.B., "Drills and Exercises," are conducted monthly between Fermi 2 and the Michigan State Police and the Monroe County Sheriff, and quarterly with Federal emergency response organizations. Communications among all emergency response facilities and organizations including offsite monitoring teams are also tested during the annual exercise.

13.3.2.7 Public Information

Standard

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency;

the principal points of contact with the news media for dissemination of information during an emergency (including physical location or locations) are established in advance; and procedures for coordinated dissemination of information to the public are established.

Emergency Plan Evaluation

The Detroit Edison public education and information program is summarized in the Emergency Plan. Details of the program are contained in a separate document, the Emergency Communications Plan. Information will be provided to the public regarding how they will be notified in the event of an emergency and what their actions should be. This information will include: (1) educational information on radiation, (2) contact for additional information, (3) protective measures (e.g., sheltering, evacuation routes, reception/care centers, and maps), and (4) special instructions for the handicapped. The information will be mailed at least annually to each dwelling in the plume exposure pathway EPZ.

The public information brochures have not yet been submitted to the NRC for NRC and FEMA review. We will require that draft brochures be submitted for review and comment before fuel loading, and that the brochures be distributed to the public prior to plant operation above 5% of rated power.

Other means for providing information to the public will include advertisements placed in local newspapers at least once per year, presentations at school programs, and speeches at community meetings. Transients in the plume exposure EPZ will be reached through the posting of information notices in such places as motels, trailer camps, park entrances, and other locations.

Arrangements have been made with the Monroe County Community College (about 10 miles southwest of the plant) for the use of the school cafeteria as an emergency news center in the event of a serious emergency condition. The cafeteria can accommodate up to 500 persons. Initially there will be 25 telephone lines dedicated for use by media representatives and arrangements have been made with the local telephone company to expand the number of lines to 500 within several days if necessary. Provisions have also been made for a near-site emergency news center in the Nuclear Operations Center which will accommodate up to 50 news media personnel. The Nuclear Operations Center is approximately one mile southwest of the plant on owner-controlled property and is the same building in which the Emergency Operations Facility is located.

The Company has designated the Vice President - Engineering and Construction, or his delegate as the spokesperson for Detroit Edison in the event of an emergency. This spokesperson and his staff will be in communication with designated personnel in the onsite emergency response facilities. Information will be released to the news media by the spokesperson through the Joint Public Information Center (JPIC). The JPIC is located near the emergency news center

at the Monroe County Community College. Public information officers from the Company as well as from Federal, State and local organizations will coordinate their activities at the JPIC. A rumor control office will also be established in conjunction with the JPIC.

Detroit Edison will conduct an annual program to acquaint the news media with the emergency plans and information concerning radiation.

The following item requires resolution:

 Submit draft public information brochures for NRC and FEMA review before fuel loading and commit to distribute the brochures to the public prior to operation above 5% of rated power.

13.3.2.8 Emergency Facilities and Equipment

Standard

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Emergency Plan Evaluation

Emergency facilities to support an emergency response have been established as follows:

- (1) Control Room The control room is located on the third floor of the Reactor Building and is designed to be habitable under postulated accident conditions. The control room contains those controls, instrumentation, and displays necessary for monitoring and controlling plant systems during both normal and emergency conditions. The control room is the initial onsite communications center during an emergency. It has reliable communications to offsite emergency response organizations, the NRC, onsite emergency facilities, and all areas of the plant.
- (2) Technical Support Center (TSC) The TSC is the emergency operations work area for senior technical, engineering, and management personnel; and a small number of NRC personnel. The TSC provides plant management and technical support to control room personnel and relieves the reactor operators of duties and communications not directly related to reactor system operations during an emergency. The TSC is located within the protected area on the ground floor of a two-story office services building approximately 31 minutes walking time from the control room. The TSC is habitable during postulated radiological emergencies to the same degree as the control room. The TSC will be activated for an Alert or higher level of emergency and can accommodate approximately 25 persons. Communication links have been provided with all onsite and offsite emergency response centers including the NRC. Adequate space is provided for the permanent storage of records and design drawings necessary to support the functioning of the TSC during emergency conditions. Data display consoles linked to the computer-based Emergency Response Information System (ERIS) are located in the TSC.

- (3) Operations Support Center (OSC) The OSC provides a designated assembly area for operations support personnel for the assignment of duties to support emergency operations. The OSC is located near the control room at the north end of the third floor of the turbine building. Personnel reporting to the OSC will include the plant fire brigade, the damage and rescue team, monitoring teams, and maintenance support personnel. Communication systems in the OSC include telephones, hand-held VHF radios, and the plant intercom system. Portable radiological monitoring instrumentation and protective clothing and equipment are provided in the OSC.
- (4) Emergency Operation Facility (EOF) The EOF provides an area for the overall management of emergency response activities including the coordination of radiological and environmental assessment, determination of recommended public protective actions, and coordination of emergency response activities with Federal, State, and local agencies. The permanent EOF is located in the basement of the Nuclear Operations Center (NOC) approximately 6000 feet southwest of the Fermi 2 plant on owner-controlled property. The EOF has been designed to be habitable under postulated accident conditions. The design includes concrete shielding (protection factor of 15) and a ventilation system with a HEPA filter which can be isolated. Primary and backup communication systems are provided between the EOF and other onsite and offsite emergency response centers. Displays and data summaries generated by the ERIS are provided in the EOF. The EOF is activated for a Site Area or General Emergency. Office space has been allocated in the EOF for State liaison personnel and the NRC.

An interim EOF is located on the turbine floor of Fermi 1. The interim EOF has adequate communication facilities and sufficient work area to accommodate the assigned staff based on observations made during a full-scale exercise in February 1982. The interim EOF is not designed to be habitable under postulated accident conditions.

The applicant has not described in the Emergency Plan nor made reference or commitment to a backup EOF within 10 to 20 miles of the plant.

The applicant filed a detailed description of the TSC, OSC and EOF with the NRC in Amendment 42 to the FSAR dated May 25, 1982. The applicant has committed to satisfy NRC guidelines regarding these facilities and has committed to have an operational TSC, OSC and EOF before initial fuel loading.

The Emergency Response Information System (ERIS) will be provided to gather, store, and display data as required in the control room, the TSC, and the EOF. ERIS equipment interfaces with the radiation monitors and the plant process and meteorological computers to analyze and retain the data needed to assess plant status and emergency conditions, determine the amount of radioactivity released, project offsite doses, and to assist assessment personnel in making protective action recommendations for emergency workers and the public.

The onsite monitoring systems and equipment used to initiate emergency measures and assess emergency conditions include radiological monitors, process monitors, meteorological instrumentation, hydrological monitors, seismic monitors, and

fire and combustion product detectors. Additional geophysical monitoring information is available from offsite sources.

The Plan describes the offsite radiological environmental monitoring program which includes thermoluminescent dosimeters for direct radiation measurements, airborne particulate and iodine continuous samplers, and sampling of surface water, drinking water, shoreline sediments, fish and milk in the vicinity of the plant. The applicant states that the radiological environmental monitoring program is consistent with the NRC Radiological Assessment Branch technical position on an acceptable radiological environmental monitoring program (RAB Technical Position, November 1979).

Laboratory facilities available to analyze the enfironmental samples include the EOF Laboratory and the onsite Chemistry and Health Physics Laboratories. In addition, the State has a mobile radiological laboratory which can be moved to the vicinity of the plant in the event of an emergency.

Emergency equipment and supplies including portable survey instruments, dosimeters, protective clothing and respirators available to support emergency operations are listed in various implementing procedures. The procedures for inventorying and inspecting the equipment and supplies are contained in Implementing Procedure EPA-5, Revision O.B., "Emergency Equipment Inventory." Equipment is inventoried at least semi-annually and after each use.

Presently, an onsite meteorological measurement program is in place to assess dispersion conditions at the site. The primary and backup systems are installed on a 60 meter tower and obtain wind speed and direction measurements at the 10 and 60 meter levels, along with vertical temperature difference between these levels, as a measure of atmospheric stability. Dewpoint at the 10 meter level and precipitation at ground level are measured as well at the 60 meter tower site.

The proximity of the plant to the coast of Lake Erie will result in possible modification of effluent transport with time and distance from the plant, which will vary on a seasonal basis. This phenomenon occurs due to the effect of lake-land breeze circulations resulting from land-water temperature differences and large scale, synoptic meteorological conditions. A detailed study, using remote sensing measurements by an acoustic sounder, has been undertaken by the applicant to characterize the height of the thermal internal boundary layer (TIBL) between the land and lake air regimes. The applicant has agreed to provide a short term supplemental meteorological study to determine if supplementary towers are needed to better define plume transport. This study will be submitted to the staff two weeks prior to the scheduled onsite appraisal of emergency preparedness at the site. When the study is completed, the applicant may provide corrections to the meteorological transport model or indicate the need for supplementary meteorological monitoring to identify lake breeze transport. Review of the lake breeze evaluation and its possible incorporation into the ERIS dose projection model will be done at a later date and reported in a future supplement to the SER.

Meteorological information concerning possible severe weather and large scale conditions that may effect the site will be available on an as-needed basis from a private meteorological service company. This service provides an acceptable source of severe weather warnings and general large scale meteorological conditions.

The following items require resolution:

- Provide a commitment to establish a backup Emergency Operations Facility in accordance with regulatory guidance or justify the absence of this facility.
- Provide a commitment that the permanent emergency response facilities will be operational prior to fuel loading, or that adequate interim facilities and equipment will be in place.
- Provide the short term meteorological study concerning lake breeze effect on plume transport and revise the meteorological model used to determine offsite dose projections if the effect is significant.

13.3.2.9 Accident Assessment

Standard

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Emergency Plan Evaluation

The Plan identifies specific instrument readings and other observable and measureable parameters which, if exceeded, will initiate an emergency in accordance with the applicant's standard emergency classification and action level scheme as discussed in Section 13.3.2.4 of this report. Effluent and containment radiation monitoring systems provide information that is used to determine the source term of an unplanned radioactive release. Two methods for assessing the potential and actual radiological consequences of a release are described in the plan and procedures. These consist of a manual calculational method and a computerized dose assessment model which is included in the Emergency Information Response System (ERIS).

The manual dose assessment method, which is presented in Emergency Plan Implementing Procedure EP-303-3, Revision O.B., "Manual Dose Assessment Calculational Procedure", uses a series of worksheets, tables and curves to determine offsite exposures. The manual method is limited to the use of readings from the high range drywell monitor and the standby gas treatment system (SGTS) effluent monitor. Conservative assumptions are used to correlate the drywell monitor readings to an activity source term. The activity is assumed to be released from the drywell to the reactor building at the design basis leak rate and to be exhausted to the environment through the SGTS. Using the determined release rates with the wind speed and stability class obtained from the onsite meteorological measurement system, whole body and thyroid doses and dose rates are

calculated as a function of distance from the plant. The calculated doses are compared to Environmental Protection Agency protective action guide doses to assess the potential impact of the event and to assist in the development of protective action recommendations. The manual dose model is an adequate interim assessment tool but lacks the capability to account for releases from all monitcred effluent pathways (e.g., steam jet air ejector exhaust), non-monitored pathways (e.g., failure of a containment isolation valve), and to accommodate measured source terms and offsite monitoring results.

The applicant's capability to perform radiological consequence analyses will be greatly enhanced when the ERIS computer system becomes operational. The ERIS will have the flexibility to analyze various actual and postulated accident scenarios utilizing potential and actual (measured) source terms, plant process data, and radiation monitor readings. Real-time meteorological information from the onsite meteorological measurement system will be used in a site-specific model within the ERIS to provide atmospheric dispersion data for the radiological calculations. The applicant has committed to have the ERIS operational by the time of fuel load and to provide supporting documentation including the technical base for the model and a users manual prior to the issuance of an operating license.

The applicant will have post-accident sampling and analytical systems, radiation and effluent monitors, in-plant iodine instrumentation, and containment radiation monitoring to provide initial estimates of unplanned releases of

radioactive materials and continued assessment throughout the course of an accident. These systems and equipment will be installed in accordance with the requirements of NUREG-0737, "Clarification of TMI Action Plan Requirements." These items are reviewed in Section 22.2 of the Safety Evaluation Report and its supplements.

The Emergency Plan does not describe the methodology for determining the release rate and projected doses if the instrumentation used for assessment is offscale or inoperable. We will require documentation of this capability before issuance of an operating license.

The applicant has established the capability and resources for field monitoring within the plume exposure pathway EPZ. Specific procedures have been developed for activating, equipping, transporting and communicating with the radiological emergency field teams. Instrumentation available for the field teams indicates that they will have the capability to detect and measure radioiodine concentration in air in the plume exposure pathway EPZ as low as 10^{-7} uCi/cc under field conditions. The radiological emergency teams will also have the capability to obtain environmental samples including water samples to assess contamination due to liquid release pathways. The applicant states that models are being developed for radioactivity released in liquid effluents to determine concentration or dose estimates at selected offsite receptor locations.

The following items require resolution:

- Provide a commitment to have the ERIS operational prior to fuel loading or upgrade the capability of the manual dose assessment model to account for all monitored gaseous release pathways and non-monitored releases.
- Establish the methodology for performing radiological consequence analyses if the instrumentation used for assessment is off-scale or inoperable.

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13.3.2.10 Protective Response

Standard

The range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Emergency Plan Evaluation

The protective response actions for onsite personnel including employees, visitors and contractor personnel are described in the Plan. Audible alarms, public address announcements, and telephone notification to specific onsite

locations will be used to assure that all personnel within the protected area and company controlled area (site boundary) are notified and advised of an emergency situation within 15 minutes. Specific procedures have been developed to accomplish a site evacuation and evacuation routes, onsite assembly areas, and offsite reassembly areas have been established. Provisions have been made to monitor and, if necessary, decontaminate personnel and equipment at the offsite centers. A procedure has been developed to accomplish accountability of all individuals within the protected area within 30 minutes. Additional onsite protective measures for individual emergency workers include the use of respiratory protection equipment, dosimetry, protective clothing, and radioprotective drugs.

The Plan describes the mechanism for recommending protective actions to State and local authorities. Emergency situations are classified according to the standard emergency action level and classification scheme discussed in Section 13.3.2.4 of this report. Communication systems and procedures are in place to assure that prompt notification can be made to offsite authorities responsible for implementing protective measures. A prompt alert and notification system will be installed in the plume exposure pathway EPZ to provide emergency instructions to the public if necessary.

The applicant has used the guidance in the EPA manual on protective actions* and in NUREG-0654 to develop the basis for recommending protective actions for the public to offsite authorities. Possible protective action recommendations are summarized in Table J-1 of the Emergency plan. A review of this information indicates that the predetermined protective action recommendations will not rely entirely on dose projections but will be based on plant conditions for certain serious General Emergency situations involving potential or actual core damage. We are in agreement with this approach, however, we believe the applicant needs to expand the possible recommendations for protective actions for General Emergencies based on the guidance in Appendix 1 to NUREG-0654 and to assure that these recommendations are fully integrated into the emergency plan and procedures. The applicant is currently developing an emergency plan implementing procedure on the protective action decision making process. We will require this procedure to be completed and, as specified in 10 CFR 50, Appendix E, Section V, submitted no less that 180 days prior to the scheduled issuance of an operating license.

Evacuation time estimates for the plume exposure pathway EPZ are contained in a separate study titled, "Estimate of Evacuation Times," revised March 1982**.

- *"Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," Environmental Protective Agency EPA-520/1-75-001, September 1975, Revised February 1980.
- **"Estimate of Evacuation Times," prepared for Detroit Edison Company by PRC Voorhees, McLean, Virginia, October 1980, Revised March 1982.

The study contains information on the plume exposure pathway EPZ, resident and transient population distribution, evacuation routes, and road characteristics and capacity. Evacuation time estimates are developed for subareas within the EPZ and for the entire EPZ for both normal and severe weather situations. The study generally conforms to the guidance in NUREG-0654, Appendix 4, however, a review of the study indicates deficiencies in the estimate of the special facility population including schools on an institution-by-institution basis (the total school population and population in institutions was presented in the study), the reduction in road capacity due to adverse weather, and review and comment by local authorities.

Protective actions for the 50-mile ingestion exposure pathway EPZ are addressed in the Michigan Emergency Preparedness Plan. Protective action guidance for the radioactive contamination of human food and animal feeds have been developed based on appropriate Federal criteria. The following items require resolution:

- Development of predetermined protective action recommendations in accordance with the guidance of Appendix 1 to NUREG-0654 and incorporation of these recommendations into the emergency plan and procedures.
- Revision to the evacuation analysis to include an enumeration of the special facility population on an institution-by-institution basis, reduction in road capacity due to adverse weather, and coordination of the study with local authorities.

13.3.2.11 Radiological Exposure Control

Standard

Means for controling radiological exposure, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Workers and Lifesaving Activity Protective Action Guides.

Emergency Plan Evaluation

The applicant has established a radiation protection program for controlling radiological exposures in the event of an emergency. Emergency radiation exposure guidelines have been provided for the emergency workers which are consistent with the EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

The Plan specifies that the Emergency Director will evaluate any emergency conditions that may require emergency personnel to receive radiation exposure in excess of 10 CFR 20 limits and, after consulting with Health Physics personnel to the greatest extent possible, will be responsible for authorizing voluntary emergency personnel to exceed 10 CFR 20 limits if deemed necessary.

The Plant Health Physics procedures define the radiation protection program for normal and emergency conditions. They provide for 24-hour per day dose determination for emergency personnel and for maintenance of dose records to ensure that exposure history is current.

Onsite contamination control measures for personnel and equipment are provided and an onsite decontamination facility has been established in the radwaste building. The criteria for decontamination of personnel and equipment are specified in the Plan. Procedures have been developed for permitting the return of contaminated areas and materials to normal use.

13.3.2.12 Medical and Public Health Support

Standard

Arrangements are made for medical services and contaminated injured individuals.

Emergency Plan Evaluation

The applicant has made arrangements, confirmed in a letter of agreement, with the Seaway Hospital, in Trenton, Michigan, about 12 miles from the plant to provide medical assitance to injured personnel including individuals contaminated or overexposed to radiation. The applicant will coordinate medical emergency activities and ensure that plans and procedures are developed; plant, ambulance and hospital personnel who have emergency medical responsibilities

receive annual training; and an annual emergency medical drill and critique are conducted. Emergency cabinets containing contamination control supplies and dosimeters are maintained at the hospital by the applicant. The Emergency Plan indicates that arrangements will be made for specialized treatment of radiation accident victims at a definitive care center but these backup facilities are not identified nor is there a letter of agreement in the Plan.

Arrangements have been made with EMTS Ambulance Service for the transportation of patients from the plant to a medical treatment facility in the event of a radiological as well as well as a nonradiological accident. These arrangements are documented in a letter of agreement included in the Plan.

As indicated in a letter to the NRC dated October 28, 1982, first aid and decontamination facilities are available onsite and a registered nurse will be on duty during normal working hours. At least two persons qualified in first aid techniques equivalent to Red Cross multimedia training will be onsite at all times.

The following item requires resoltuion:

 Specify the availability and arrangements made for backup medical facilities for the treatment of individuals involved in radiological accidents.

13.3.2.13 Recovery and Reentry Planning and Post-accident Operations

Standard

General plans for recovery and reentry are developed.

Emergency Plan Evaluation

The Emergency Plan describes the general plans for recovery and reentry following a significant emergency event. The emergency classification may be downgraded by the Emergency Director or the Emergency Officer in accordance with criteria established in the Emergency Plan Implementing Procedures (EP-103, EP-104, and EP-105). The Emergency Officer becomes the Recovery Manager and has the responsibility for determining when the Reentry and Recovery phase of an emergency can be initiated and for advising other organizations that the onsite organization has initiated such operations. Procedures has been developed (EP-401 and EP-402) to be utilized during reentry and recovery operations.

A recovery organization has been established consistent with the recommendations of the Atomic Industrial Forum's "Nuclear Power Plant Emergency Response Plan." The key positions, functions, and responsibilities in the recovery organization are described in the Emergency Plan and in Implementing Procedure EP-111, Revision O.B., "Recovery Organization."

Environmental and dose projection personnel in the EOF will periodically update the total population exposure estimates in cooperation with Federal and State agencies.

13.3.2.14 Exercises and Drills

Planning Objective

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Emergency Plan Evaluation

The program of exercises and drills to achieve and maintain an acceptable level of emergency preparedness is described in the Emergency Plan with additional details in Implementing Procedure EPA-4, Revision O.B., "Exercises and Drills."

An annual exercise will be conducted which simulates an emergency that results in offsite radiological releases and involves the participation of State and local response personnel and organizations. The exercise scenario will be varied from year to year so that over a five-year period all major elements of the emergency preparedness plans and organizations will be tested. The exercises will be initiated at different times of the day and night and conducted under various weather conditions.

As a minimum, the following drills will be conducted:

- (1) Communication Drills Tested monthly between the emergency response facilities (Control Room, TSC and EOF) and the Michigan State Police and Monroe County Sheriff; tested quarterly with the NRC; tested annually between the ERFs and offsite organizations as part of the full-scale exercise; and tested annually between the EOF and offsite Radiological Emergency Teams. The communication drills will include the aspect of understanding the content of emergency messages.
- (2) Fire Drills Conducted quarterly with the onsite fire brigade and annually with the Frenchtown Township Volunteer Fire Department.
- (3) Medical Emergency Drill Conducted annually and will include the EMTS Ambulance Service and Seaway Hospital.
- (4) Radiological Monitoring Drills Conducted annually.
- (5) Health Physics Drills Conducted semiannually.

The Plan provides for the development of drill and exercise scenarios which include the basic objectives and evaluations criteria; dates, places, and participating organization; the simulated events; a time schedule of the events; a narrative summary; and assignments for controllers, evaluators, and observers. All drills and exercises are preceded by a planning conference and followed by a critique. The Supervisor, Radiological Emergency Response

Preparedness is responsible for developing and implementing the program and for ensuring that corrective actions are implemented for areas identified as needing improvement.

A full-scale exercise of the Emergency Plan was conducted at the Fermi 2 plant on February 1-2, 1982, which tested the integrated responses of the applicant, State of Michigan, Province of Ontario, Monroe County, Wayne County, and Essex County (Ontario).

13.3.2.15 Radiological Emergency Response Training

Standard

Radiological emergency response training is provided to those who may be called upon to assist in an emergency.

Emergency Plan Evaluation

The applicant has established a radiological emergency response training and qualification program which is summarized in the Emergency Plan. The training program includes general emergency plan orientation for all persons at the site and specific training for members of the emergency response organization. Provisions have been made for the initial training and periodic retraining

of emergency response personnel. Besides classroom training, the training includes participation in practical drills. Periodic examinations are given to members of the onsite emergency organization and a means for documenting the training is identified in the Plan.

The Emergency Plan lists some 17 functional roles in the onsite emergency response organization for which specific training requirements have been established. While the majority of the functional roles in an emergency are covered, some of the role categories are not clearly defined (e.g., control room personnel, EOF personnel) and the list is not all inclusive; that is, some emergency functions are not included (e.g., radiological assessment and dose projection, post-accident sampling and analysis).

The emergency response training program includes training for members of the offsite emergency organization who have a direct support role such as the local fire, ambulance and medical personnel who may be called upon for assistance and to enter the site. The Emergency Plan does not indicate if training is also made available for other members of the offsite emergency organization (e.g., monitoring teams, radiological analysis personnel, protective action decision makers) who do not have a direct service support function.

The following item requires resolution:

 Clearly define the Emergency Plan training program categories to ensure that all personnel who implement the Plan and all functional areas of emergency activity are included.

13.3.2.16 Responsibility for the Planning Effort: Development, Periodic Review and Distribution of Emergency Plans

Standard

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Emergency Plan Evaluation

The Assistant Vice President and Manager - Nuclear Operations has overall authority and responsibility for radiological emergency response planning for Detroit Edison. The Supervisor, Radiological Emergency Response Preparedness (RERP) fulfills the duties of an Emergency Planning Coordinator and is responsible for developing and updating the emergency plan and implementing procedures, and coordination the plan and procedures with other response organizations. Provisions have been made in the Emergency Plan training program to ensure that all Detroit Edison personnel involved in the planning effort complete training in emergency preparedness as specified in the program.

Each section of the Emergency Plan corresponds to a planning standard of NUREG-0654. The Plan contains a specific table of contents and an appendix listing, by number and title, the procedures required to implement the Plan. The Plan states that a detailed listing of supporting plans and their sources is included in Appendix 1, however, this listing was missing from the Plan being reviewed.

Implementing Procedures (EPA-2 and EPA-3) have been developed for the review and revision of the emergency plan and procedures. The Plan will be reviewed and updated on an annual basis; changes of an immediate nature will be made as necessary. The annual review will include such items as recommended corrective actions from drills and exercises, changes in State or Federal regulations or regulatory guidance, modifications to plant facilities, systems or equipment which could affect emergency planning, and changes in State and local emergency plans or capabilities. Telephone numbers in the emergency procedures are updated at least quarterly.

Procedures have been established for the distribution of the Emergency Plan and revisions to all organizations and individuals with responsibility for implementation of the Plan.

An Independent Review and Audit Group will conduct an independent audit of the Emergency Plan at least every 12 months. This audit will address all aspects of the emergency preparedness program including the Plan,

implementing procedures, training, readiness testing, equipment, and interfaces with State and local governments. The results of all reviews are documented and forwarded to the Supervisor, RERP who is responsible for initiating the appropriate corrective actions. Documents concerned with reviews of the emergency preparedness program will be retained for at least five years.

13.3.3 Conclusions

Based on our review of the Fermi Unit 2 Radiological Emergency Response Plan for conformance with the specific criteria in NUREG-0654/FEMA-REP-1 which addresses each of the planning standards of Section 50.47(b) of 10 CFR Part 50, and with the requirements of Appendix E to 10 CFR Part 50, we conclude that the Fermi 2 Emergency Plan, upon satisfactory correction of those items requiring resolution and those items requiring commitment by Detroit Edison, as identified in Section 13.3.2 of this report, will provide an adequate planning basis for an acceptable state of emergency preparedness.

After reviewing the findings and determinations made by FEMA on the adequacy of State and local emergency response plans, and after reviewing the revisions to the applicant's Emergency Plan, a supplement to this report will provide our overall conclusions as to whether the state of onsite and offsite emergency preparedness provides reasonable assurance that adequte protective measures can and will be taken in the event of a radiological emergency.